BRUHAT BANGALORE MAHANAGARA PALIKE

Project:Providing Cement concrete roadsand drains at saraipalya Muninagappa Layout cross roads in ward no 06 Byatarayanapura Sub division

Amt 40.00lakhs

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Muninagappa layout	Cum							
	2nd main		2	185.00	0.55	0.45	91.58		
	3rd main		2	255.00	0.65	0.50	165.75		
	2nd main 1st cross		1	25.00	0.60	0.50	7.50		
	2nd main 2nd cross		1	27.00	0.60	0.50	8.10		
	2nd main 3rd cross		1	25.00	0.60	0.50	7.50		
	2nd main 4th cross		1	20.00	0.60	0.50	6.00		
	2nd main 5th cross		2	150.00	0.60	0.45	81.00		
	2nd main 6th cross		1	60.00	0.60	0.50	18.00		
	culverts		6	6.20	2.00	1.05	78.12		
							463.55	186.92	**86645.83**
	Basic rate	**82**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**4.92**							
	Final Rate	**186.92**							
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab Drain	Sqm							
	2nd main		2	156	1.80	--	561.60		
	Consider 20% Missing slabs and damaged slabs						-112.32		
							449.28	80.56	**36194.00**
	Basic rate	**76**							
	Area Weightage 6%	**4.56**							
	Final Rate	**80.56**							
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	Muninagappa layout	Sqm							
	3rd main		2	255	1.80	--	918.00		
	2nd main 1st cross		1	25	1.80	--	45.00		
	2nd main 2nd cross		1	27	1.80	--	48.60		
	2nd main 3rd cross		1	25	1.80	--	45.00		
	2nd main 4th cross		1	20	1.80	--	36.00		
	2nd main 5th cross		2	150	1.80	--	540.00		
	2nd main 6th cross		1	60	1.80	--	108.00		
	Consider 20% Missing slabs and damaged slabs						**112.32**		
							1852.92	665.68	**1233451.79**
	Basic rate	**628**							
	Area Weightage 6%	**37.68**							
	Final Rate	**665.68**							

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	For raising/flagging culverts		6	6.20	2.00	0.15	11.16		
							11.16	5348.76	**59692.16**
	Basic rate	**5046**							
	Area Weightage 6%	**302.76**							
	Final Rate	**5348.76**							
5	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-								
	culverts		12	6.20	0.60	0.80	35.71		
							35.71	4438.22	**158488.84**
	Basic rate	**4187**							
	Area Weightage 6%	**251.22**							
	Final Rate	**4438.22**							
6	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	culverts	Sqm	12	6.20		0.80	59.52		
							59.52	102.82	**6119.85**
	Basic rate	**97**							
	Area Weightage 6%	**5.82**							
	Final Rate	**102.82**							
7	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	culverts		12	6.20	0.60	0.100	4.46		
							4.46	5767.46	**25722.87**
	Basic rate	**5441**							
	Area Weightage 6%	**326.46**							
	Final Rate	**5767.46**							
8	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							
	culverts		6	6.20	1.80	--	66.96		
							66.96	5317.00	**356026.32**
	Data Rate =4764								
9	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	2nd main		1	50.00	5.70	0.20	57.00		
	2nd main 1st cross		1	25.00	6.00	0.15	22.50		

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	2nd main 2nd cross		1	27.00	4.80	0.15	19.44		
	2nd main 3rd cross		1	25.00	5.20	0.15	19.50		
	2nd main 4th cross		1	20.00	5.20	0.15	15.60		
	2nd main 5th cross		1	150.00	5.80	0.15	130.50		
	2nd main 6th cross		1	60.00	4.00	0.15	36.00		
							300.54	148.76	**44708.33**
	Basic rate	**46**							
	Loading and unloading with 10km lead= 68+2.2x1.28x10 =	**100**							
	Area Weightage 6%	**2.76**							
	Final Rate	**148.76**							
10	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	2nd main		**1**	50.00	5.70	0.25	71.25		
	2nd main 1st cross		1	25	6.00	0.25	37.50		
	2nd main 2nd cross		1	27	4.80	0.25	32.40		
	2nd main 3rd cross		1	25	5.20	0.25	32.50		
	2nd main 4th cross		1	20	5.20	0.25	26.00		
	2nd main 5th cross		1	150	5.80	0.25	217.50		
	2nd main 6th cross		1	60	4.00	0.25	60.00		
							477.15	1768.08	**843639.37**
	Basic rate	**1668**							
	Area Weightage 6%	**100.08**							
	Final Rate	**1768.08**							
11	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Portion	sqm							
	2nd main		1	50.00	5.70	--	285.00		
	2nd main 1st cross		1	25.00	6.00	--	150.00		
	2nd main 2nd cross		1	27.00	4.80	--	129.60		
	2nd main 3rd cross		1	25.00	5.20	--	130.00		
	2nd main 4th cross		1	20.00	5.20	--	104.00		
	2nd main 5th cross		1	150.00	5.80	--	870.00		
	2nd main 6th cross		1	60.00	4.00	--	240.00		
							1908.60	29.68	**56647.25**
	Basic rate	**28**							
	Area Weightage 6%	**1.68**							
	Final Rate	**29.68**							
12	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	2nd main		1	50.00	5.70	--	285.00		
	2nd main 1st cross		1	25.00	6.00	--	150.00		
	2nd main 2nd cross		1	27.00	4.80	--	129.60		
	2nd main 3rd cross		1	25.00	5.20	--	130.00		
	2nd main 4th cross		1	20.00	5.20	--	104.00		
	2nd main 5th cross		1	150.00	5.80	--	870.00		
	2nd main 6th cross		1	60.00	4.00	--	240.00		
							1908.60	12.72	**24277.39**
	Basic rate	**12**							
	Area Weightage 6%	**0.72**							
	Final Rate	**12.72**							
13	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	For Laying BC	Cum							
	2nd main		1	50.00	5.70	0.040	11.40		
	2nd main 1st cross		1	25.00	6.00	0.040	6.00		
	2nd main 2nd cross		1	27.00	4.80	0.040	5.18		
	2nd main 3rd cross		1	25.00	5.20	0.040	5.20		
	2nd main 4th cross		1	20.00	5.20	0.040	4.16		
	2nd main 5th cross		1	150.00	5.80	0.040	34.80		
	2nd main 6th cross		1	60.00	4.00	0.040	9.60		
							76.34	8013.60	**611790.28**
	Basic rate	**7560**							
	Area Weightage 6%	**453.6**							
	Final Rate	**8013.60**							
14	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line		2	357.00	0.10	--	71.40		
							71.40	542.72	**38750.21**
	Basic rate	**512**							
	Area Weightage 6%	**30.72**							
	Final Rate	**542.72**							
								Total Construction Cost	**3582154.48**
15	Add cost of **Waste Plastic** @ 8% of Bitumen weight								
	Bitumen = 141 kg/cum		--	--	--	--	**861.16**	27.00	**23251.00**
	Waste =76.34X 141 X 8 / 100 = 861.16								
16								**Cost towards Design Report , PMC / Third Party inspection LS**	**35821.54**
18								**Tender Premium 10%**	**358215.45**
								Sub Total	**3999442.48**
19								**Miscellaneous and rounding off**	**557.52**
								Total	**4000000.00**

ADMINISTRATIVE APPROVAL
Accorded For Rs. Forty lakhs only
Head of A/c P-3316
Div. Ref. No. 44/17-18 Date 27/11/17
AEE(R) EE(RTD)

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

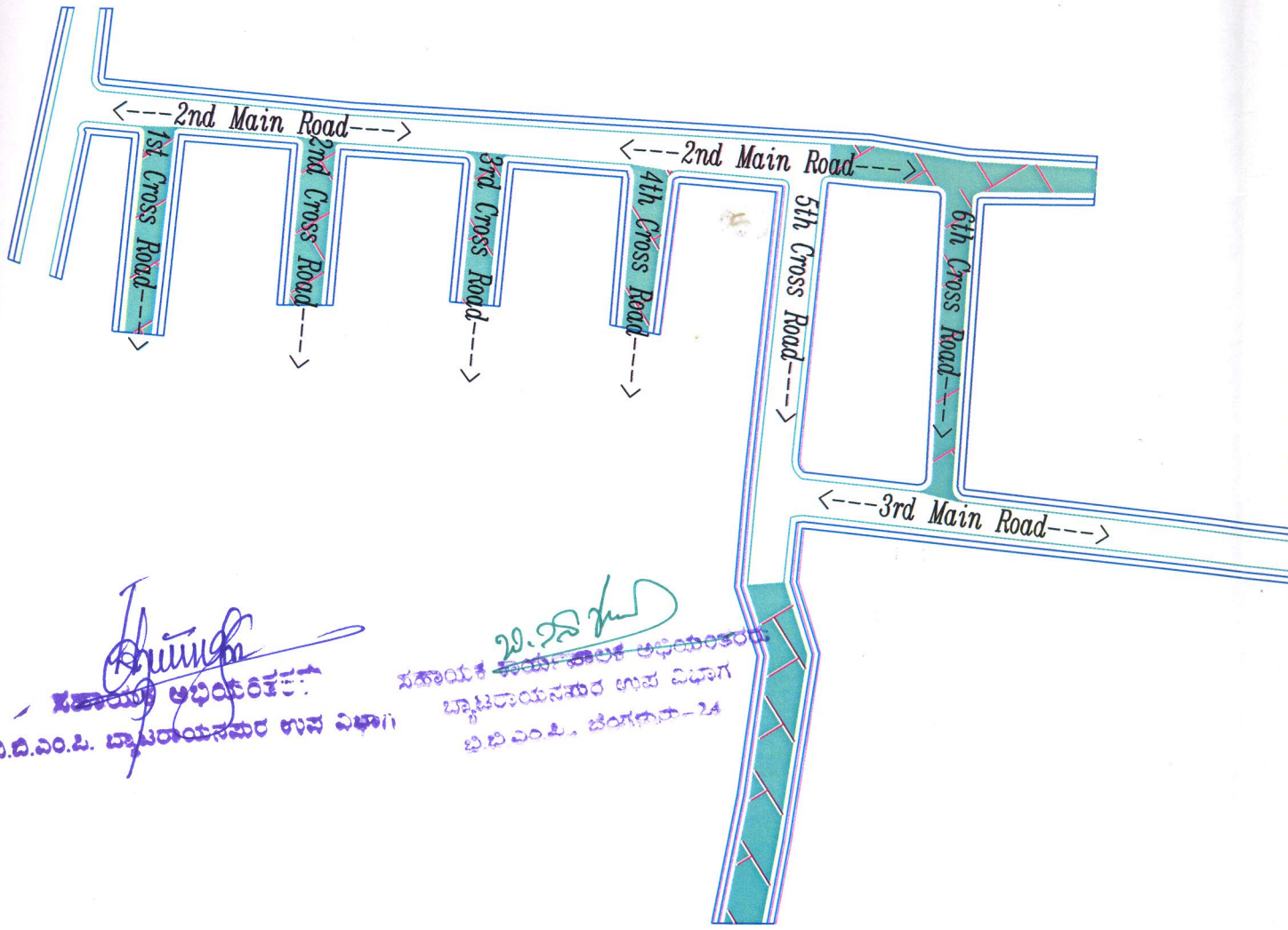
Assistant Engineer | Assistant Executive Engineer | Executive Engineer 27/11

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೃಹದಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬೃಹದಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Technical Sanction
Accorded For 40.00 lakh Rs
Head of A/C P-3316
CER NO : 397 Dt. 28/11/17
TA CE (YNK)

BRUHAT BANGALO

Providing Cement concrete roads at Muninagappa Layout cross



ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ~~ಕಾರ್ಯ ಪಾಲಕ ಅಭಿಯಂತರರು~~
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

NOTE:-

1. ALL DIMENSION & LEVELS ARE Mts. UNLESS OTHERWISE MENTIONED.

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

DATE	REVISION	DESCRIPTIONS	SIGN

LEGEND:-

Asphalt

CC Road

Drain

NGALORE MAHANAGARA PALIKE

ut cross roads in ward no 06 Byatarayanapura Sub division

Road Name	Length
2nd Main	185m
1st Cross	25m
2nd Cross	27m
3rd Cross	25m
4th Cross	20m
5th Cross	150m
6th Cross	60m

MUNINAGAPPA LAYOUT

LEGEND:-

Asphalt

CC Road

Drain

TITLE: STRIP PLAN

1/1

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Drains and Asphalting to Golden Treat layoutnear Anam Enclave Layout in ward no 06 Byatarayanapura Sub division

Amt30.00lakhs

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Golden treat layout	Cum							
	Main road		2	200.00	0.50	0.50	99.00		
	cross road RHS 1		1	65.00	0.65	0.50	21.13		
	cross road RHS 2		1	65.00	0.65	0.50	21.13		
	cross road RHS 3		1	60.00	0.65	0.50	19.50		
	culverts		3	5.50	1.30	1.20	25.74		
							186.49	186.92	**34858.71**
	Basic rate	**82**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**4.92**							
	Final Rate	**186.92**							
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab Drain	Sqm							
	Main road		2	180.00	1.80	--	648.00		
	Consider 10% Missing slabs and damaged slabs						-64.80		
							583.20	80.56	**46982.59**
	Basic rate	**76**							
	Area Weightage 6%	**4.56**							
	Final Rate	**80.56**							
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
		Sqm							
	cross road RHS 1		1	65.00	1.80	--	117.00		
	cross road RHS 2		1	65.00	1.80	--	117.00		
	cross road RHS 3		1	60.00	1.80	--	108.00		
	Consider 10% Missing slabs and damaged slabs						64.80		
							406.80	665.68	**270798.62**
	Basic rate	**628**							
	Area Weightage 6%	**37.68**							
	Final Rate	**665.68**							
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	For Culverts								
			3	5.50	1.3	0.15	3.22		
							3.22	5348.76	**17223.01**
	Basic rate	**5046**							
	Area Weightage 6%	**302.76**							
	Final Rate	**5348.76**							

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
5	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD SR 2016-17)								
	Bottom Slab	Sqm							
	For Culverts		6	5.50	--	0.25	8.25		
							8.25	244.86	**2020.10**
	Basic rate	**231**							
	Area Weightage 6%	**13.86**							
	Final Rate	**244.86**							
6	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.15, I.No.4.31 of								
	Side Walls	Sqm							
	For Culverts		12	5.50	--	0.60	39.60		
							39.60	310.58	**12298.97**
	Basic rate	**293**							
	Area Weightage 6%	**17.58**							
	Final Rate	**310.58**							
7	Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2016-17)								
	Culvert	Cum							
	Bottom Slab								
	For Culverts		3	5.50	1.30	0.25	5.36		
	Side Walls								
	For Culverts		6	5.50	0.25	0.80	6.60		
							11.96	6231.74	**74547.19**
	Basic rate	**5879**							
	Area Weightage 6%	**352.74**							
	Final Rate	**6231.74**							
8	KSRB - 4.9.2: Providing TMT steel reinforcement Fe500 for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.2 of PW, P&IWTD SR 2016-17)								
	Consider 80Kgs/cum for item No. only RCC Drain Qty	Tonne		11.96	0.080	--	0.96		
							0.96	73691.2	**70743.55**
	Basic rate	**69520**							
	Area Weightage 6%	**4171.2**							
	Final Rate	**73691.2**							
9	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							
	culverts		3.00	5.50	1.30	--	21.45		
							21.45	5317.00	**114049.65**
	Data Rate =5317								

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
10	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Golden treat layout								
	Main road		1	200.00	7.50	0.20	300.00		
	cross road RHS 1		1	65.00	5.00	0.20	65.00		
	cross road RHS 2		1	65.00	4.50	0.20	58.50		
	cross road RHS 3		1	60.00	4.60	0.20	55.20		
							423.50	148.76	**62999.86**
	Basic rate	**46**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**2.76**							
	Final Rate	**148.76**							
11	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH								
	Road Portion	Cum							
	Golden treat layout								
	Main road		1	200.00	7.50	0.25	375.00		
	cross road RHS 1		1	65.00	5.00	0.25	81.25		
	cross road RHS 2		1	65.00	4.50	0.25	73.13		
	cross road RHS 3		1	60.00	4.60	0.25	69.00		
							598.38	1768.08	**1057974.87**
	Basic rate	**1668**							
	Area Weightage 6%	**100.08**							
	Final Rate	**1768.08**							
12	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of								
	Road Portion	sqm							
	Golden treat layout								
	Main road		1	200.00	7.50	--	1500.00		
	cross road RHS 1		1	65.00	5.00	--	325.00		
	cross road RHS 2		1	65.00	4.50	--	292.50		
	cross road RHS 3		1	60.00	4.60	--	276.00		
							2393.50	29.68	**71039.08**
	Basic rate	**28**							
	Area Weightage 6%	**1.68**							

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Final Rate	**29.68**							
13	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							
	Golden treat layout								
	Main road		1	200.00	7.50	--	1500.00		
	cross road RHS 1		1	65.00	5.00	--	325.00		
	cross road RHS 2		1	65.00	4.50	--	292.50		
	cross road RHS 3		1	60.00	4.60	--	276.00		
							2393.50	12.72	**30445.32**
	Basic rate	**12**							
	Area Weightage 6%	**0.72**							
	Final Rate	**12.72**							
14	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all								
	For Laying BC	Cum							
	Golden treat layout								
	Main road		1.00	200.00	7.50	0.040	60.00		
	cross road RHS 1		1.00	65.00	5.00	0.040	13.00		
	cross road RHS 2		1.00	65.00	4.50	0.040	11.70		
	cross road RHS 3		1.00	60.00	4.60	0.040	11.04		
							95.74	8013.60	**767222.06**
	Basic rate	**7560**							
	Area Weightage 6%	**453.6**							
	Final Rate	**8013.60**							
15	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line		2	390.00	0.10	--	78.00		
							78.00	542.72	**42332.16**
	Basic rate	**512**							
	Area Weightage 6%	**30.72**							
	Final Rate	**542.72**							
								Total Construction Cost	**2675535.74**
16	Add cost of **Waste Plastic** @ 8% of Bitumen weight								
	Bitumen = 141 kg/cum		--	--	--	--	**1079.95**	27.00	**29159.00**
	Waste =95.74X 141 X 8 / 100 =10794.95								
17								**Cost towards Design Report , PMC / Third Party inspection LS**	**26755.36**
18								**Tender Premium10%**	**267553.57**
								Sub Total	**2999003.68**
19								**Miscellaneous and rounding off**	**996.32**
								Total	**3000000.00**

Administrative Approval Accorded For 30.00 lakh Rs. Head of A/C P3316 CER NO : 178 Dt. 28/11/17

TA CE (YNK)

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

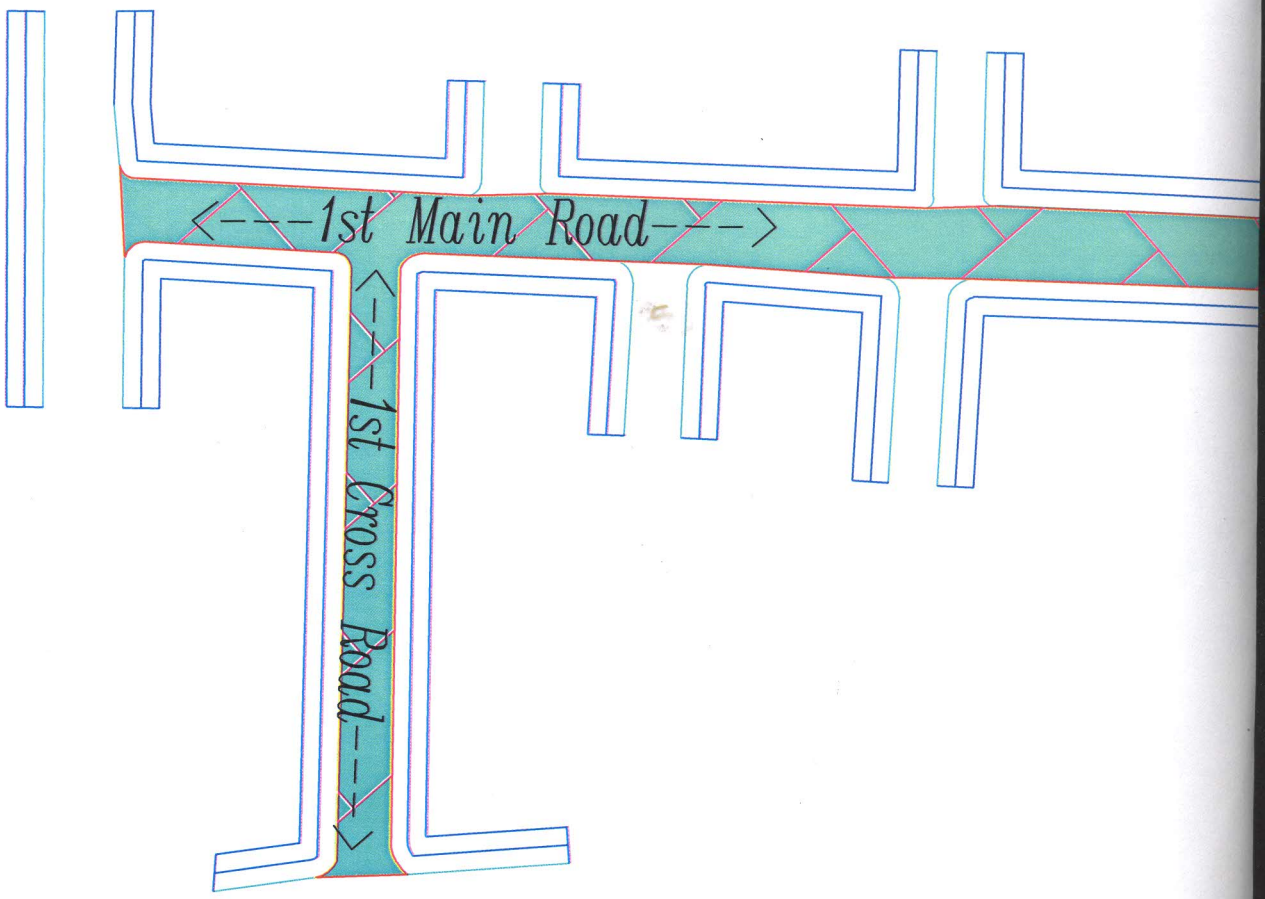
Assistant Engineer | Assistant Executive Engineer | Executive Engineer 27/11

Technical Sanction Accorded For 30.00 lakh Rs. Head of A/C P3316 CER NO : 403 Dt: 28/11/17

TA CE (YNK)

BRUHAT BANGAL

Improvements to Drains and Asphalting to Road at Golden Retreat Layout Near A



NOTE:-

1. ALL DIMENSION & LEVELS ARE Mts. UNLESS OTHERWISE MENTIONED.

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

DATE	REVISION	DESCRIPTIONS	SIGN

LEGEN
Asphal
Asphal
CC R
CC R
Drain

ORE MAHANAGARA PALIKE

ham Enclave Layout in Ward No 06 Byatarayanapura Sub division

Road Name	Length
1st Main	200m
1st Cross	65m

D:-

WMM+BC

BC

PCC+PQC

PQC

TITLE: STRIP PLAN 1/1

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Roads and Drains at saraipalya Saw mill road left side cross roads in ward no 06 Byataravanapura Sub division

Amt 30.00lakhs

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Saw mill lhs cross roads	Cum							
	cross road 1		1	142.00	0.60	0.60	51.12		
	cross road 2		1	140.00	0.50	0.45	31.50		
	cross road 3		1	100.00	0.60	0.50	30.00		
	cross road 4		1	30.00	0.60	0.60	10.80		
	cross road 5		1	32.00	0.60	0.60	11.52		
	cross road 6		1	32.00	0.60	0.60	11.52		
	cross road 7		1	32.00	0.60	0.60	11.52		
	cross road 8		1	32.00	0.60	0.60	11.52		
	cross road 9		1	33.00	0.60	0.60	11.88		
	culverts		4	6.50	2.00	1.05	54.60		
	Over burden earth		2	49.00	1.80	1.50	264.60		
							500.58	186.92	**93568.41**
	Basic rate	**82**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**4.92**							
	Final Rate	**186.92**							
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab Drain	Sqm							
	cross road 2		1	140	1.35	--	189.00		
	Consider 10% Missing slabs and damaged slabs						-18.90		
							170.10	80.56	**13703.26**
	Basic rate	**76**							
	Area Weightage 6%	**4.56**							
	Final Rate	**80.56**							
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	Saw mill lhs cross roads	Sqm							
	cross road 1		1	142	1.35	--	191.70		
	cross road 2		1	140	1.35	--	189.00		
	cross road 3		1	100	1.35	--	135.00		
	cross road 4		1	30	1.35	--	40.50		
	cross road 5		1	32	1.35	--	43.20		
	cross road 6		1	32	1.35	--	43.20		
	cross road 7		1	32	1.35	--	43.20		
	cross road 8		1	32	1.35	--	43.20		
	cross road 9		1	33	1.35	--	44.55		
	Consider 10% Missing slabs and damaged slabs						**18.90**		

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
							792.45	665.68	**527518.12**
	Basic rate	**628**							
	Area Weightage 6%	**37.68**							
	Final Rate	**665.68**							
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	For culverts								
	Culverts		4	6.00	2.00	0.15	7.20		
							7.20	5348.76	**38511.07**
	Basic rate	**5046**							
	Area Weightage 6%	**302.76**							
	Final Rate	**5348.76**							
5	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Culverts		8.00	6.00	0.60	0.80	23.04		
							23.04	4438.22	**102256.59**
	Basic rate	**4187**							
	Area Weightage 6%	**251.22**							
	Final Rate	**4438.22**							
6	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Culverts	Sqm	8.00	6.00		0.80	38.40		
							38.40	102.82	**3948.29**
	Basic rate	**97**							
	Area Weightage 6%	**5.82**							
	Final Rate	**102.82**							
7	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	Culverts		8.00	6.00	0.60	0.100	2.88		
							2.88	5767.46	**16610.28**
	Basic rate	**5441**							
	Area Weightage 6%	**326.46**							
	Final Rate	**5767.46**							
8	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Culverts		4	6.00	2.00	--	48.00		
							48.00	5317.00	**255216.00**
	Data Rate =5317								
9	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Saw mill lhs cross roads								
	cross road 1		1	142.00	4.00	0.25	142.00		
	cross road 2 bad reaches		10	0.90	2.10	0.25	4.73		
	cross road 4		1	30.00	5.50	0.25	41.25		
	cross road 5		1	32.00	5.40	0.25	43.20		
	cross road 6		1	32.00	5.10	0.25	40.80		
	cross road 7		1	32.00	5.90	0.25	47.20		
	cross road 8		1	32.00	4.50	0.25	36.00		
	cross road 9		1	33.00	4.50	0.25	37.13		
							392.30	148.76	**58358.55**
	Basic rate	**46**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**2.76**							
	Final Rate	**148.76**							
10	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Saw mill lhs cross roads								
	cross road 1		1	142.00	4.00	0.25	142.00		
	cross road 2 bad reaches		10	0.90	2.10	0.25	4.73		
	cross road 4		1	30.00	5.50	0.25	41.25		
	cross road 5		1	32.00	5.40	0.25	43.20		
	cross road 6		1	32.00	5.10	0.25	40.80		
	cross road 7		1	32.00	5.90	0.25	47.20		
	cross road 8		1	32.00	4.50	0.25	36.00		
	cross road 9		1	33.00	4.50	0.25	37.13		
							392.30	1768.08	**693617.78**
	Basic rate	**1668**							
	Area Weightage 6%	**100.08**							
	Final Rate	**1768.08**							
11	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Portion	sqm							
	Saw mill lhs cross roads								

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	cross road 1		1	142.00	4.00	--	568.00		
	cross road 2 bad reaches		10	0.90	2.10	--	18.90		
	cross road 4		1	30.00	5.50	--	165.00		
	cross road 5		1	32.00	5.40	--	172.80		
	cross road 6		1	32.00	5.10	--	163.20		
	cross road 7		1	32.00	5.90	--	188.80		
	cross road 8		1	32.00	4.50	--	144.00		
	cross road 9		1	33.00	4.50	--	148.50		
							1569.20	29.68	**46573.86**
	Basic rate	**28**							
	Area Weightage 6%	**1.68**							
	Final Rate	**29.68**							
12	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							
	cross road 2		1	**140.00**	5.50		770.00		
	Deduct prime coat for Bad Reaches						-18.90		
							751.10	3.18	**2388.50**
	Basic rate	**3**							
	Area Weightage 6%	**0.18**							
	Final Rate	**3.18**							
13	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							
	Saw mill lhs cross roads								
	cross road 1		1	142.00	4.00	--	568.00		
	cross road 2		1	140.00	5.50	--	770.00		
	cross road 4		1	30.00	5.50	--	165.00		
	cross road 5		1	32.00	5.40	--	172.80		
	cross road 6		1	32.00	5.10	--	163.20		
	cross road 7		1	32.00	5.90	--	188.80		
	cross road 8		1	32.00	4.50	--	144.00		
	cross road 9		1	33.00	4.50	--	148.50		
							2320.30	12.72	**29514.22**
	Basic rate	**12**							
	Area Weightage 6%	**0.72**							
	Final Rate	**12.72**							
14	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	For Laying BC	Cum							
	Saw mill lhs cross roads								
	cross road 1		1.00	142.00	4.00	0.040	22.72		
	cross road 2		1.00	140.00	5.50	0.040	30.80		
	cross road 4		1.00	30.00	5.50	0.040	6.60		

Sl. No	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	cross road 5		1.00	32.00	5.40	0.040	6.91		
	cross road 6		1.00	32.00	5.10	0.040	6.53		
	cross road 7		1.00	32.00	5.90	0.040	7.55		
	cross road 8		1.00	32.00	4.50	0.040	5.76		
	cross road 9		1.00	33.00	4.50	0.040	5.94		
							92.81	8013.60	**743758.24**
	Basic rate	**7560**							
	Area Weightage 6%	**453.6**							
	Final Rate	**8013.60**							
15	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line		2	473.00	0.10	--	94.60		
							94.60	542.72	**51341.31**
	Basic rate	**512**							
	Area Weightage 6%	**30.72**							
	Final Rate	**542.72**							
							Total Construction Cost		**2676884.48**
16	Add cost of **Waste Plastic** @ 8% of Bitumen weight								
	Bitumen = 141 kg/cum		--	--	--	--	**1046.92**	27.00	**28267.00**
	Waste =92.81X 141 X 8 / 100 = 1046.92								
17	**Cost towards Design Report , PMC / Third Party inspection LS**								**26768.84**
18							**Tender Premium 10%**		**267688.45**
							Sub Total		**2999608.77**
19							**Miscellaneous and rounding off**		**391.23**
								Total	**3000000.00**

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer | Assistant Executive Engineer | Executive Engineer 27/11

Administrative Approval
Accorded For 30.00 lakh Rs
Head of A/C P3316
CER NO : 180 Dt: 28/11/17
TA CE (YNK)

Technical Sanction
Accorded For 30.00 lakh Rs.
Head of A/C P3316
406 Dt: Dt. 28/11/17
TA CE (YNK)

BRUHAT BANGAL

Asphalting to Roads and Improvements to Drains at Saraipalya Sawmill R

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

20.ನವೆಂ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-26

NOTE:-

1. ALL DIMENSION & LEVELS ARE Mts. UNLESS OTHERWISE MENTIONED.

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

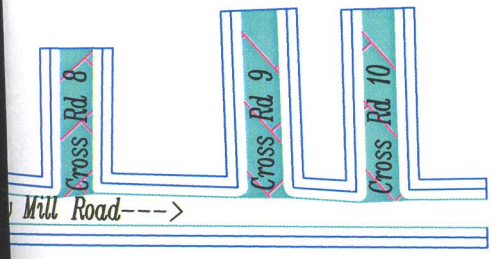
DATE	REVISION	DESCRIPTIONS	SIGN

LEGE
Asphal
Asphal
CC R
CC R
Drain

LORE MAHANAGARA PALIKE

Road left Side Cross Roads in Ward No 06 Byatarayanapura Sub division

Road Name	Length
Cross Road 1	142m
Cross Road 2	140m
Cross Road 4	30m
Cross Road 5	32m
Cross Road 6	32m
Cross Road 7	32m
Cross Road 8	32m
Cross Road 9	33m



WMM+BC
BC
PCC+PQC
PQC

TITLE: STRIP PLAN

1/1